
Level 3 Experiment

Random redirect tool

BOPMA 2018
Tracey Webster
Trident High School
webstert@trident.school.nz

With thanks to Anna Martin for her amazing ideas



TEACHING STATISTICS IS AWESOME

a blog for statistics teachers

<http://teaching.statistics-is-awesome.org/>

Road Safety

<http://www.mathstatic.co.nz/auto/TOWNEOMP>

Driveways safety video



Road Safety

What do you think this road safety experiment was testing?

Music in movies - what experiment was actually testing

- Which music did you hear?
- Links:
 - Website <https://midnightmusic.com.au/2011/06/an-intro-to-film-scoring-same-scene-5-ways/>
 - Youtube https://www.youtube.com/watch?time_continue=12&v=ktKcnDfWs2c

Driveways safety video



Road Safety Experiment

- What was this experiment testing?
- What was the control variable? Treatment variable?
- What was the response variable?
- What are the experimental units?
- How is random allocation occurring? Why does random allocation happen?
- What do you think will happen? WHY?

Job Interview

<https://script.google.com/macros/s/AKfycbwCofiZgbm2JOAYIPzKJU12mCZGSFC40mYryA9pCcO2XdwERsw/exec>

<https://tinyurl.com/BOPMA2018TW>

Job interview - what do you think it was testing?

Which Charlie did you see?

Will you give Charlie the job? *



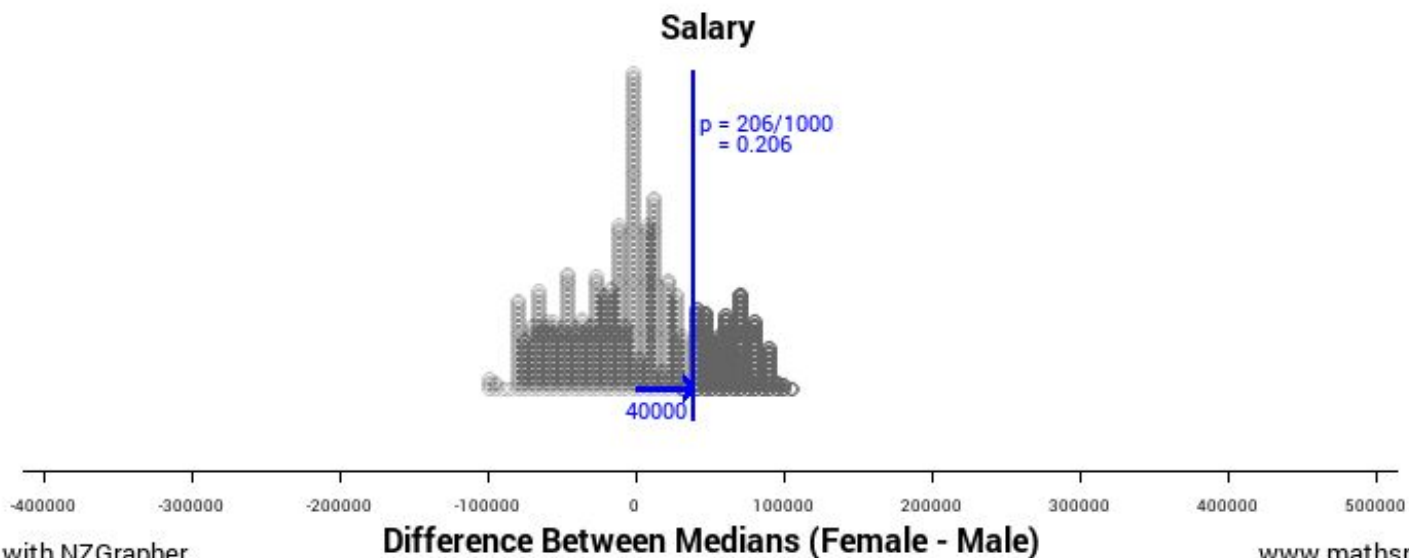
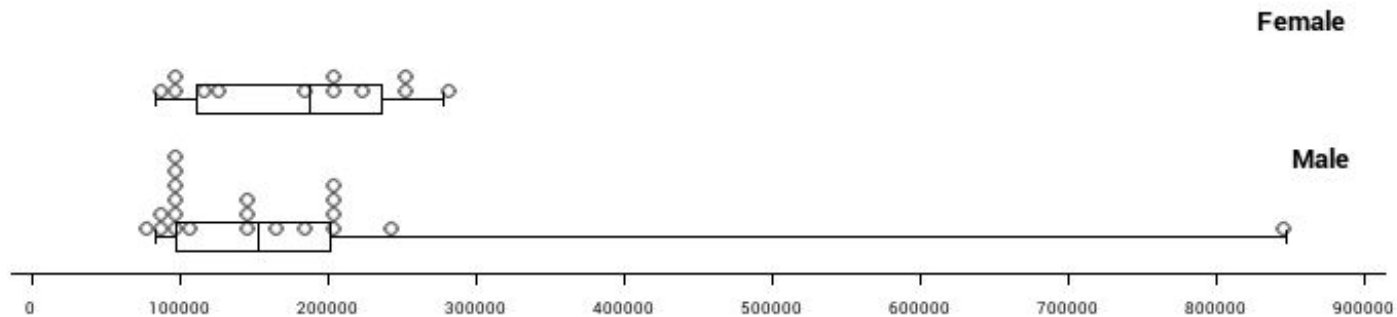
OR

Will you give Charlie the job? *



Salaries of Proposed Male and Female CEOs

Gender of Charlie



Cross-curricular link

- Level 3 Programming credits
- Digital teacher
- 91637 Develop a complex computer program for a specified task

Junior Surf League

<https://script.google.com/macros/s/AKfycbyrGD6fQpB9fqyEoUAZQcRygAlfIZfE5rqt3Z4atScgdL9xtzN/exec>

Junior Surf league - did you see

SURVEY

When Professional Junior Surfers compete and win at the World Surf League they can win between \$2000 and \$1000.

Rio is the winner of the male Junior Surf League. How much money do you think he won?



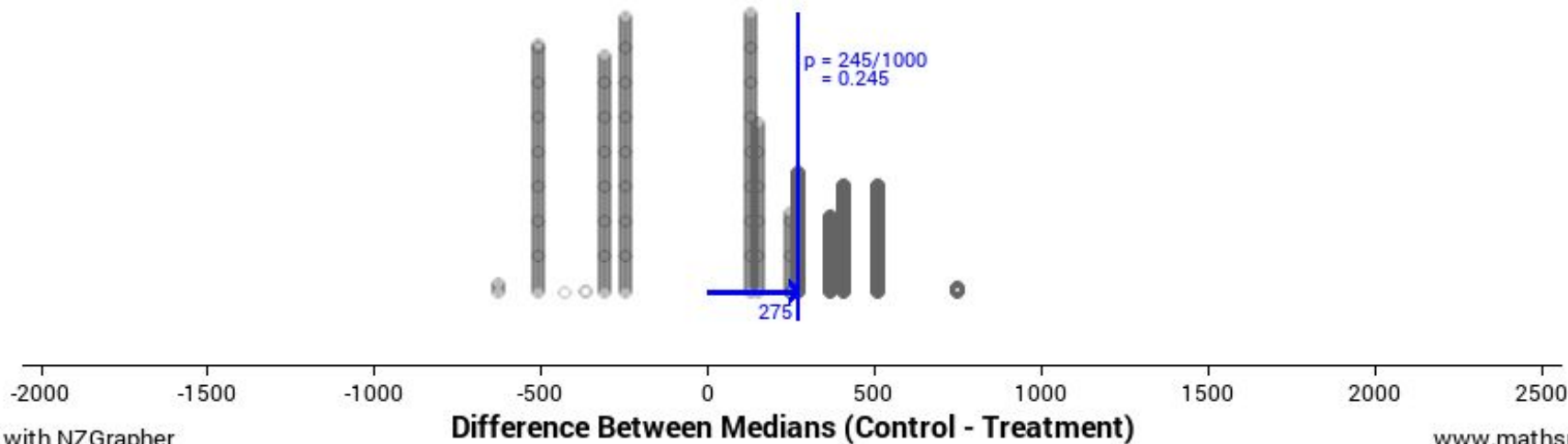
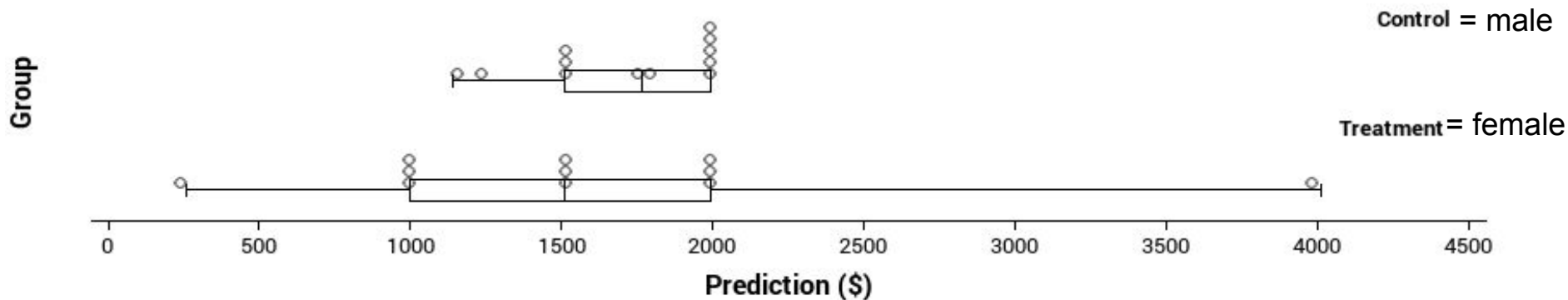
SURVEY

When Professional Junior Surfers compete and win at the World Surf League they can win between \$2000 and \$1000.

This is Zoe Steyn the winner of the female Junior Surf league. How much money do you think she won?



Predictions that a male or female surfer would have won at a competition



Criminal Justice

<https://script.google.com/macros/s/AKfycby0LDwfRTCcnWB9xOIBicLMXNcWkH-KeDrRGnzdeRwlRNNy7br/exec>

Criminal Justice - what do you think it was testing?

Criminal Justice - Did you see this (control)

You are the Judge.

Roger robbed his local dairy in a hoodie and with a knife. He did not hurt anyone but the owners were very shaken. He was stopped by the police after emergency services were called. He has no previous criminal convictions and no previous experiences involving the police. You are the judge responsible for action.

How long should Roger serve? *

Or did you see this? (treatment)

You are the Judge.

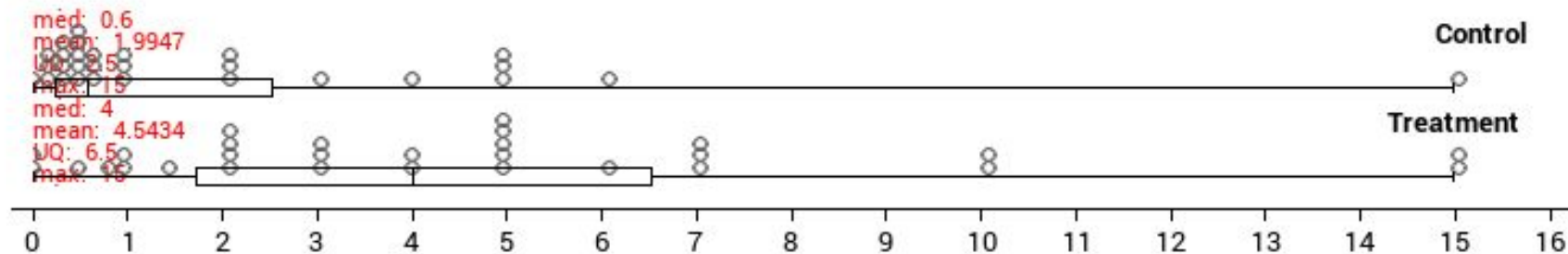
Roger robbed his local dairy in a hoodie and with a knife. He did not hurt anyone but the owners were very shaken. He took \$110.50 from the till and hid the money in his pocket. He was stopped by the police after emergency services were called. He has two previous instances of robberies of identical natures and has a history of run ins with the police. You are the judge

a result of his action.

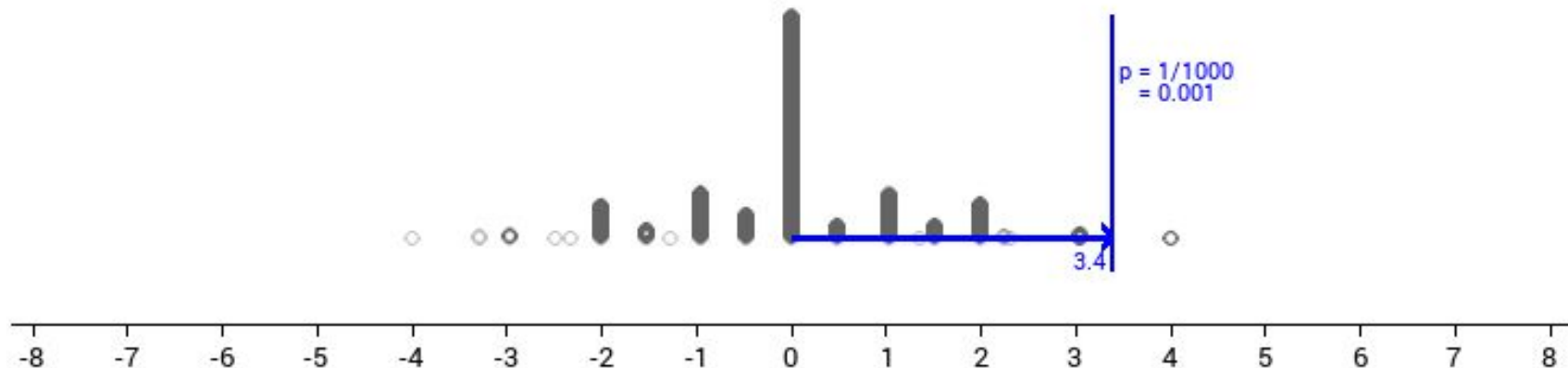
How long should Roger serve? *

Re-randomisation

Group



Response



Difference Between Medians (Treatment - Control)

And they weren't all fab....

<https://script.google.com/macros/s/AKfycbzKm6FNBdhngTQFPWCJMPGUHZiUxA-a3vkia78a1iK31oOdXKpJ/exec>

Great exemplar for next year's learners

- Sources of variation
- what can be improved :)

Untitled Section



On a scale of 1-5 how skilled do you think the driver above is?

Choose ▾

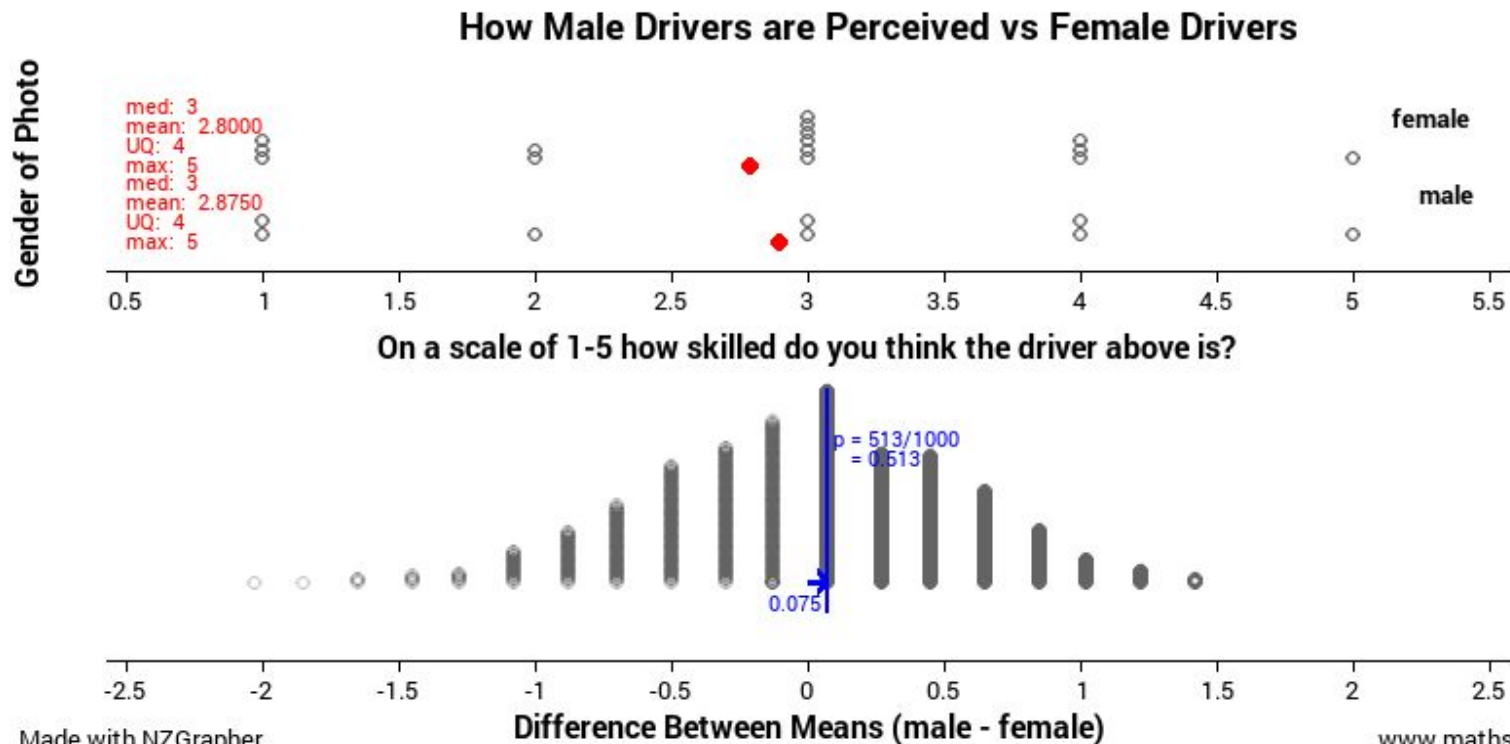
Untitled Section



on a scale of 1-5 how skilled do you think the driver above is?

Choose ▾

Are we surprised by these results?



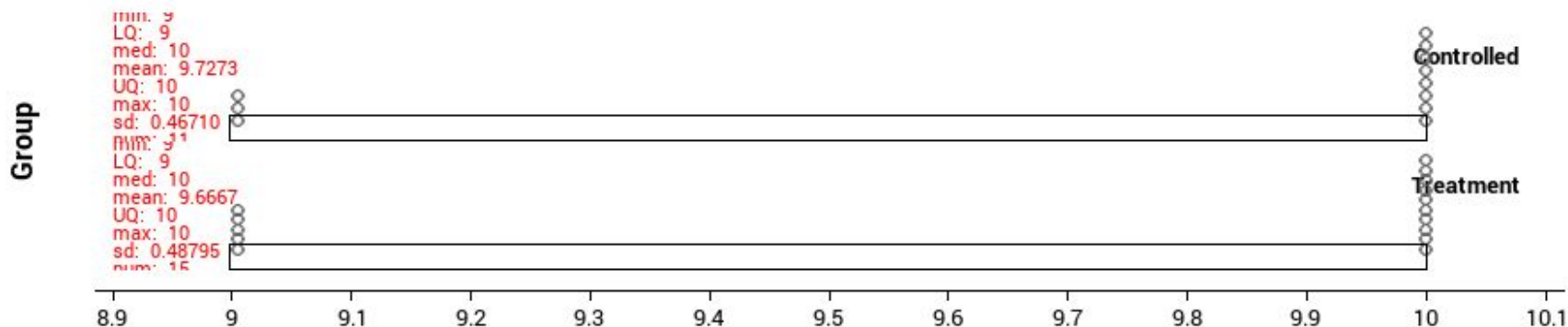
Absent students

- Easy to catch-up
- Managed from Hawaii
- And another good exemplar for learning next year

Memory test

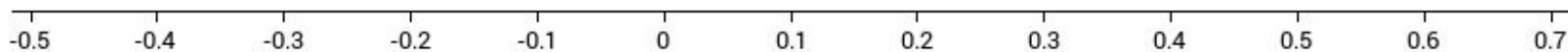
<http://www.mathstatic.co.nz/auto/YRWMXOYP>

Lyrical music(treatment) vs non lyrical music(controlled)



- Name some sources of variation?
- What improvements could be made?
- What main design flaw do these results point towards?

Correct Shapes



Difference Between Medians (Controlled - Treatment)

The random direct tool

- Do I need to do any preparation?
- Do students need to do a lot of work?
- Are there any instructions?

Random redirect tool

So if I wanted to learn how to use the random redirect tool, where do I go?

- I spent 4 minutes last night following these instructions. Easy peasy, voila, it worked!
- <http://teaching.statistics-is-awesome.org/designing-online-experiments-using-google-forms-random-redirect-tool/>

I quickly created a questionnaire about pedestrian safety with a few “filler” questions to try to disguise the treatment used in the experiment (although I didn’t really try that hard). Once I was happy with the questionnaire, I created a copy of it and changed ONE thing only – which was the music accompanying the scene shown in “driveways safety” video. I then used the random redirect tool I’ve made available here <http://www.mathstatic.co.nz/auto> to create the link I shared earlier in the post.

Enter the two links you want to randomly redirect to in the box below.

Please note that the link created is public, so it is up to you to set up privacy controls for any information you share through the link.

Link 1

Link 2

Another cross-curricular link:

Biology AS91601 Carry out a practical investigation in a biological context, with guidance 4 credits

- Things we have learnt:
 - Busy time of year = less stress
 - Only accessible to Biology students
 - Lack of statistical ideas, e.g. random allocation, so need to remind them to use statistical evidence and language.



More ideas... Science fair???

Teaching and Learning

Inspiration & Innovative Practice

Reading Matters: Device or Paper?

Year 9 student Willa McLachlan shares the findings of her science fair project which compared reading on a device with reading on paper to determine the effect it had on comprehension.

By Education Central - November 14, 2018  610  1



https://educationcentral.co.nz/reading-matters-device-or-paper/?fbclid=IwAR1GxIS-gjMTiaU604DR-JMwLKflTw_sPvL1MM7VFEam5flrT_YI1c8Yiho



**KEEP
CALM**

it's

**QUESTION
TIME**